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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------|------------------|
| 10/749,284   | 12/30/2003  | Gerald A. Domoto     | D/A3194 XERZ 2 00659 | 9827             |
| 27885  | 7590        | 08/08/2006           | EXAMINER             |                  |
| FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP<br>1100 SUPERIOR AVENUE, SEVENTH FLOOR<br>CLEVELAND, OH 44114 |             |                      | NGO, HOANG X         |                  |
|  |             |                      | ART UNIT             | PAPER NUMBER     |
|  |             |                      | 2852                 |                  |

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/749,284

Applicant(s)

DOMOTO ET AL.

Examiner

Hoang Ngo

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3,4,7-9,13,14,16 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4,7-9,13,14,16 and 19-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 7, 13, 14, and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Akiko (JP 11-282294).

Akiko discloses a method and apparatus comprising a fusing station 1 (Fig. 1) for fusing a marking agent (i.e. toner) to an imaging receiving medium (i.e. imprinting material, Para. 003), said fusing station comprising a fuser roller 1 configured as a heat pipe 1b including a sealed hollow cavity containing a working fluid (Para. 0007); a pressure roller that forms a nip with the fuser roller through which the image receiving medium passes (Para. 003, and an electrical coil 3 (Abstract, Fig. 1) inductively coupled to the fuser roller to inductively heat the fuser roller upon energizing the electrical coil with electrical power wherein the electric coil surrounds an outer periphery of the fuser roll.

Akiko further discloses wherein a wall of the fuser roller is formed from a magnetic material (Para. 007).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 8 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiko in view of Omoto et al.

As discussed above, Akiko discloses every aspects of the applicant's claimed invention except for the fuser roller having a wall with a thickness of less than 0.3 mm and wherein the wall of the fuser roller is formed from a nonconductive material having embedded magnetic particles.

Omoto et al disclose a fuser roller 41 having a wall thickness of less than 0.3 mm (Col. 9, line 63) and is formed of a nonconductive material having embedded magnetic material.

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the fuser roller wall thickness, material, and the location of the electrical coil in relation to the fusing roller as taught by Omoto into the fuser device of Akiko in order to obtain a better thermal conductivity for the fusing roller.

6. Claims 3, 4, 16, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiko in view of Lee.

As discussed above, Akiko discloses every aspect of applicant's claimed invention except for having a heat pipe that can stiffen against deformation; the working fluid is a combination of water and methanol and having a pressure greater than 135 psi at the operating temperatures of between 350 – 400 degrees F.

Lee discloses an image forming apparatus comprising a fuser roller 212 having a heat pipe 262 made of a material (i.e. type 60 aluminum, Col. 11, line 60) and an internal pressure load that can stiffen against deformation (Col. 14, lines 35-60), a working fluid with a combination of water and methanol (Table 2, Col. 13) having a pressure greater than 135 psi at a working temperature of between 350 – 400 degrees F (see Table 4, Col. 14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fuser device of Akiko to include the heat pipe as taught by Lee in order to prevent the heat pipe from being deformed by high heat and pressure.

7. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiko in view of Hyllberg et al.

As discussed above, Akiko discloses every aspects of the applicant's claimed invention except for a pressure relief system provided on the- fuser roller to protect against over pressurization.

Hyllberg et al disclose a fuser roller 10 having a heat pipe 21 with a pressure relief system (i.e. pressure rupture disk, Col 4, lines 64-67) to protect against over pressurization.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the pressure relief system taught by Hyllberg et al to the fuser device of Akiko to protect the heat pipe from over pressurization.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

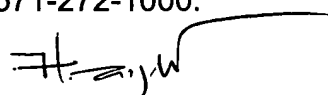
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Ngo whose telephone number is (571) 272-2138. The examiner can normally be reached on 6:00am - 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hoang Ngo  
Primary Examiner  
Art Unit 2852

Hn  
August 3, 2006